AF/JCW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	Sarah E. Kim, et al.	Art Unit:	2812
Serial No.:	10/669,205	Examiner:	Stanetta D. Isaac
Filed:	September 24, 2003	Atty Docket:	ITL.1040US (P14807)
For:	Integrated Re-Combiner for Electroosmotic Pump Using Porous Frits	Assignee:	Intel Corporation

Mail Stop **Appeal Brief**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

TRANSMITTAL OF AMENDED APPEAL BRIEF

Dear Sir:

In response to the Notification of Non-Compliant Appeal Brief, attached hereto is an Amended Appeal Brief. In the Status of Amendments section, further elaboration has been entered concerning the Reply to Final Rejection, the subsequent Advisory Action, and the appellant's understanding as to the status of amendments. The Amended Appeal Brief is therefore believed to be in compliance.

No fee is believed to be due with this response. However, the Commissioner is authorized to charge any fee due to Deposit Account No. 20-1504 (ITL.1040US).

Respectfully submitted,

Date: 8/31/07

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Date of Deposit: August 31, 2007
I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as **first class mail** with sufficient postage on the date indicated above and is addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Nancy Meshkoff

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Nancy Meshkoff

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REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

RELATED APPEALS AND INTERFERENCES

None.

STATUS OF CLAIMS

Claims 1-13 (Canceled).

Claim 14 (Rejected).

Claim 15 (Canceled).

Claims 16-17 (Rejected).

Claims 18-21 (Canceled).

Claims 14, 16, and 17 are rejected and are the subject of this Appeal Brief.

STATUS OF AMENDMENTS

In response to the Final Rejection mailed on November 17, 2006, a Reply to Final Rejection was filed on November 30, 2006. No amendments were made in this reply.

The Advisory Action mailed on January 31, 2007 contained check marks indicating that "[f]or purposes of appeal, the proposed amendment(s)...will be entered". Appellant therefore believes that all amendments to date have been entered.

SUMMARY OF CLAIMED SUBJECT MATTER

In the following discussion, the independent claims are read on one of many possible embodiments without limiting the claims:

14. A method comprising:

forming a trench (Figure 10, 62) in an integrated circuit substrate (Figure 10, 60) (specification at page 9, lines 7-12);

lining the trench with a catalyst material (Figure 10, 64) to remove gases from a circulating fluid (specification at page 9, lines 13-18);

forming channels (Figure 12, 68a, 68b) that align with said trench to allow fluid circulation completely across said substrate from one side of said substrate to the other and through said trench (specification at page 10, line 22 to page 11, line 5); and

protecting said catalyst when forming said channels (specification at page 10, lines 3-8).

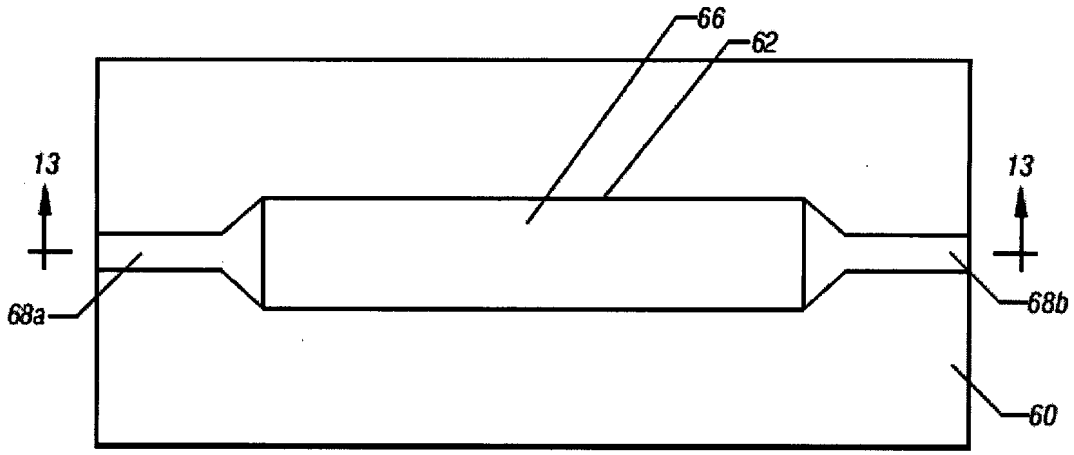

FIG. 12

At this point, no issue has been raised that would suggest that the words in the claims have any meaning other than their ordinary meanings. Nothing in this section should be taken as an indication that any claim term has a meaning other than its ordinary meaning.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

A. **Whether claim 14 is anticipated under 35 U.S.C. § 102(e) by Arik (US 6,864,571).**

B. **Whether claims 16 and 17 are unpatentable under 35 U.S.C. § 103(a) over Arik (US 6,864,571).**

ARGUMENT

A. Is claim 14 anticipated under 35 U.S.C. § 102(e) by Arik (US 6,864,571)?

1. Does Arik Teach Use of a Catalyst to Remove Gases from a Circulating Liquid?

The claim requires a catalyst material to remove gases from the circulating liquid. The catalyst material in the cited reference is a catalyst that causes carbon nanotubes to grow. See column 3, lines 21-35.

The final rejection notes that liquid is evaporated in the catalyst lined trenches. But the catalyst has nothing whatsoever to do with that evaporation. Thus, the catalyst is not to remove gases from the circulating liquid, but, rather, merely to grow carbon nanotubes. The fact that the catalyst for growing carbon nanotubes is there when liquid naturally evaporates off is of no moment since the claimed limitation is not met.

Therefore the rejection should be reversed.

2. Does Arik Teach Channels that Align with the Trench to Allow Fluid Circulation Completely Across the Substrate from One Side of the Substrate to the Other and Through the Trench?

The claim requires channels that align with the trench to allow fluid circulation completely across the substrate.

The Examiner suggests that the grooves can be formed on both the top and the bottom of the combined substrates. But, even if this is so, the groove is already shown in only one of the two opposed substrates. Forming the trench partially in the top substrate and partially in the bottom does not extend the sideways length of the trench. It is still too short, as it was before, even if this modification were attempted.

Further, it is suggested that Arik implies that the grooves would have been formed across either wafer from side to side since the fluid flows through the channels formed within the grooves. But this is incorrect. The length of the channels is better shown in Figure 4. They merely radiate outwardly from the center, but do not go completely across the substrate, as indisputably shown there.

Reversal is requested for this additional reason.

3. Does Arik Teach Protecting the Catalyst When Forming the Channels?

The claim also requires protecting the catalyst when forming the channels.

Arik teaches using a material to define the position of the catalyst. For example, that material may be spread apart and may have openings where the catalyst goes. Thus, any place where the catalyst overlaps the material, the catalyst is removed and anywhere else it stays. But, necessarily, that material cannot protect the catalyst when forming the channels because that material is only in the places where the catalyst does not end up. As a result, it leaves the catalyst always unprotected and, necessarily, the catalyst is unprotected when forming the channels. Moreover, it appears that the channels are formed before the catalyst is deposited.

For all these reasons, the rejection should be reversed.

B. Are claims 16 and 17 unpatentable under 35 U.S.C. § 103(a) over Arik (US 6,864,571)?

For the reasons above, the rejection of claims 16 and 17 should also be reversed.

* * *

Applicant respectfully requests that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: August 31, 2007

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CLAIMS APPENDIX

The claims on appeal are:

14. A method comprising:

forming a trench in an integrated circuit substrate;

lining the trench with a catalyst material to remove gases from a circulating fluid;

forming channels that align with said trench to allow fluid circulation completely across said substrate from one side of said substrate to the other and through said trench; and

protecting said catalyst when forming said channels.

16. The method of claim 14 including depositing platinum as said catalyst in said trench.

17. The method of claim 14 including depositing lead in said trench as said catalyst.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.